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Ackerman et al.

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(54) **SUPPORT SURFACE SYSTEM FOR
SECURING OBJECTS**

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This patent is subject to a terminal dis-
claimer.

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A61G 7/05; A61F 5/3776; A61F 5/3784

See application file for complete search history.

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(57) **ABSTRACT**

An apparatus has conforming arms each respectively attached to a support surface in a pattern for cooperatively receiving an object. Actuators respectively position the plurality of conforming arms between a disengaged state to receive the object and an engaged state to contact the object at a respective contact area to immobilize the object. A control system selectively controls each of the actuators to cause the respective one of the conforming arms to curve inwardly toward the object to cooperatively exert a grasping force upon the object such that only a fraction of total force required to immobilize the object is applied to the object by each individual conforming arm. A selected grasping force of a selected one of the conforming arms corresponds to a relative fragility of the respective contact area.

19 Claims, 11 Drawing Sheets

